



MATERIAL SAFETY DATA SHEET

PRODUCT

NALCOLYTE 8103 COAGULANT

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: NALCOLYTE 8103 COAGULANT

DESCRIPTION: An aqueous solution of a polyquaternary amine

NFPA 704M/HMIS RATING: 0/0 HEALTH 1/1 FLAMMABILITY 0/0 REACTIVITY 0 OTHER
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

SECTION 2 HAZARDOUS INGREDIENTS

Our hazard evaluation of the ingredient(s) under OSHA's Hazard Communication Rule, 29 CFR 1910.1200 has found none of the ingredient(s) hazardous.

SECTION 3 PRECAUTIONARY LABEL INFORMATION

CAUTION: May cause irritation to skin and eyes. Avoid contact with skin, eyes and clothing. Do not take internally.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

SECTION 4 FIRST AID INFORMATION

EYES: Flush with water for 15 minutes. Call a physician.
SKIN: Flush with water for 15 minutes.
INGESTION: Do not induce vomiting. Give water. Call a physician.
INHALATION: Remove to fresh air. Treat symptoms. Call a physician.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin

EYE CONTACT: Non-irritating.
SKIN CONTACT: Can cause mild, short-lasting irritation.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.



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SECTION 6 TOXICOLOGY INFORMATION

ACUTE TOXICITY STUDIES: Acute toxicity studies have been conducted on this product. The results are shown below.

ACUTE ORAL TOXICITY (ALBINO RATS): $LD_{50} = 4,699$ mg/kg

95% Confidence Limit = 3,772 - 5,854 mg/kg

ACUTE DERMAL TOXICITY (ALBINO RABBITS): $LD_{50} =$ Greater than 2,000 mg/kg

PRIMARY SKIN IRRITATION TEST (ALBINO RABBITS):

SKIN IRRITATION INDEX DRAIZE RATING:

0.84/8.0 Mildly Irritating

PRIMARY EYE IRRITATION TEST (ALBINO RABBITS):

EYE IRRITATION INDEX DRAIZE RATING:

1.0/110.0 Practically Non-Irritating

SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR:	Clear light yellow	FORM:	Liquid	ODOR:	None
DENSITY:	9.1 lbs/gal.				
SOLUBILITY IN WATER:	Completely				
SPECIFIC GRAVITY:	1.09 @ 60 Degrees F			ASTM D-1298	
pH (NEAT) =	4.5			ASTM E-70	
FREEZE POINT:	14 Degrees F			ASTM D-1177	
FLASH POINT:	Greater than 200 Degrees F (PMCC)			ASTM D-93	

NOTE: These physical properties are typical values for this product.

SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: Greater than 200 Degrees F (PMCC) ASTM D-93

EXTINGUISHING MEDIA: This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use water to cool containers exposed to fire.

UNUSUAL FIRE AND EXPLOSION HAZARD: May evolve NO_x under fire conditions.

SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid alkaline materials (eg. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanides, sulfides, hypochlorites, chlorites) which can generate heat



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SECTION 9 REACTIVITY INFORMATION

(CONTINUED)

with splattering or boiling and the release of toxic fumes.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO₂, NO_x may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

SECTION 10 PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: Respiratory protection is not normally needed since the volatility and toxicity are low. If significant vapors, mists or aerosols are generated, wear a NIOSH approved or equivalent respirator.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.

VENTILATION: General ventilation is recommended.

PROTECTIVE EQUIPMENT: Use impermeable gloves and chemical splash goggles when attaching feeding equipment or doing maintenance.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (708-920-1510)

SPILL CONTROL AND RECOVERY:

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

Large liquid spills: Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

This product is toxic to fish. It should not be directly discharged into lakes, ponds, streams, waterways or public water supplies.

DISPOSAL: If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C,



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SECTION 11 SPILL AND DISPOSAL INFORMATION

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nor is it listed under Subpart D.

As a non-hazardous liquid waste, it should be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to an industrial waste landfill. A non-hazardous liquid waste can also be incinerated in accordance with local, state and federal regulations.

SECTION 12 ENVIRONMENTAL INFORMATION

BIOCHEMICAL OXYGEN DEMAND (5-day BOD): 700 mg/L

CHEMICAL OXYGEN DEMAND (COD): 88,940 mg/L

TOTAL ORGANIC CARBON (TOC): 62,440 mg/L

AQUATIC DATA:

96 hour static acute LC_{50} to Bluegill Sunfish = 0.90 mg/L

96 hour no observed effect concentration is 0.56 mg/L based on no mortality or abnormal effects.

96 hour static acute LC_{50} to Rainbow Trout = 0.47 mg/L

96 hour no observed effect concentration is 0.18 mg/L based on no mortality or abnormal effects.

96 hour static acute LC_{50} to Sheepshead Minnow = Greater than 1000 mg/L

96 hour no observed effect concentration is 100 mg/L based on no mortality or abnormal effects.

96 hour static acute LC_{50} to Fathead Minnow = 0.9 mg/L

96 hour no observed effect concentration is 0.6 mg/L based on no observed abnormal behavior.

TOXICITY RATING: Extremely toxic

48 hour static acute LC_{50} to Daphnia magna = 97 mg/L

48 hour no observed effect concentration is less than 40 mg/L based on no observed abnormal behavior.



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SECTION 12 ENVIRONMENTAL INFORMATION

(CONTINUED)

TOXICITY RATING: Moderately toxic

If released into the environment, see CERCLA in Section 14.

SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - PRODUCT IS NOT REGULATED
DURING TRANSPORTATION

SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

FEDERAL REGULATIONS:

OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:
Based on our hazard evaluation, this product is not hazardous.

CERCLA, 40 CFR 117, 302:
Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986
(TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):
This product does not contain ingredients listed in Appendix A and B as an
Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):
Our hazard evaluation has found that this product is not hazardous under
29 CFR 1910.1200.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):
This product does not contain ingredients (at a level of 1% or greater) on the
List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):
The chemical ingredients in this product are on the 8(b) Inventory List
(40 CFR 710).

FOOD AND DRUG ADMINISTRATIONS (FDA) Federal Food, Drug and Cosmetic Act:
When use situations necessitate compliance with FDA regulations, this product
is acceptable under 21 CFR 176.170 components of paper and paperboard in



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SECTION 14 REGULATORY INFORMATION

(CONTINUED)

contact with aqueous and fatty foods, and under 21 CFR 176.180 components of paper and paperboard in contact with dry food.

U. S. EPA - OFFICE OF DRINKING WATER - ADDITIVES EVALUATION BRANCH:
The USEPA has approved this product for use as a coagulation aid in the treatment of potable water. The maximum recommended product dosage limit is 50 ppm.

AMERICAN WATER WORKS ASSOCIATION (AWWA):

This product meets the requirements for ANSI/AWWA Standard B451-87.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:
Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15
(formerly Sec. 307), 40 CFR 116 (formerly Sec. 311):
None of the ingredients are specifically listed.

CLEAN AIR ACT, 40 CFR 60, Section 111, 40 CFR 61, Section 112:
This product does not contain ingredients covered by the Clean Air Act.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:

None of the chemicals on the current Proposition 65 list are known to be present in this product.

MICHIGAN CRITICAL MATERIALS:

This product does not contain ingredients listed on the Michigan Critical Materials Register.

STATE RIGHT TO KNOW LAWS:

The following ingredient(s) are disclosed for compliance with State Right To Know Laws:

Polyquaternary amine	Trade secret
Sodium chloride	7647-14-5
Water	7732-18-5

SECTION 15 ADDITIONAL INFORMATION

None



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SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

SECTION 17 BIBLIOGRAPHY

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SECTION 17 BIBLIOGRAPHY

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